APPENDIX D: CBTF RESEARCH PRIORITIES

CURRENTLY ACCEPTING CONCEPT PROPOSALS:

BMP Effectiveness Evaluation
Evaluate the effectiveness of Best Management Practices (BMPs) used to prevent bacterial contamination at coastal beaches in California. Assess categories of BMPs with regard to changes in shoreline FIB concentrations, and regional trends over time. Identify effective BMP(s) for bacteria reduction in differing environmental conditions.

Source Identification Studies
Conduct Source Identification Studies, utilizing new source investigation protocols, to identify bacteria sources contributing to chronically impaired beaches, and recommend potential project(s) to reduce or eliminate the contributing source(s).

Review California's Coastal Water Monitoring for Fecal Indicator Bacteria (FIB)
Review California's current coastal water quality monitoring/notification programs for FIB at beaches, and make recommendations for improvements to protect public health while leveraging limited resources to fund the programs. Consider locations, timing, frequency, and/or other relevant information (such as epidemiology studies).

NOT CURRENTLY ACCEPTING CONCEPT PROPOSALS:

New and improved rapid indicators *(Not currently accepting concept proposals)*
Develop quantifiable, accurate, rapid, and affordable microbial indicators of water quality that better correlate with the presence and quantity of human pathogens. The CBTF will place emphasis on indicators that are not susceptible to regrowth in the environment. It is essential that new indicators be tied to epidemiology study results, QMRA evaluations, and/or water quality results as outlined by the EPA to ensure that they indeed quantify health risk and will be useable by California state regulatory agencies. It is also essential that any new analytical method be implementable by county Environmental Health Agency environmental microbiology labs, and generate results in four hours or less. Specifically, work is needed to develop guidance and framework for regulators to use findings of epidemiological studies and alternative indicator monitoring data that can be integrated into current monitoring criteria and standards.

Improved understanding of FIB fate and transport *(Not currently accepting concept proposals)*
Develop a quantifiable understanding of FIB fate and transport, including pathogen relationships, for applications such as TMDLs, risk assessment, and BMPs. Examples of relevant need include regrowth (e.g., sand, storm drains), die-off, and transport in watersheds, including the subsurface and in/along the surf zone.